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ABSTRACT

At Prince George's Community College (PGCC), in Maryland, a comprehensive freshman academic monitoring database has been developed to follow the progress of peer groups of first-time students entering each fall through their sixth year of potential enrollment. Using the new database, as well as information from the Maryland Higher Education Commission's Transfer Student system, PGCC completed an analysis of outcomes for the cohorts from fall 1990 to fall 1992. In the analysis, students were classified as achievers if they either left PGCC with a formal academic accomplishment or reached sophomore status in good academic standing; as unexplained exiters if they left without meeting achiever status; and as continuing students if they were not achievers but were still attending PGCC. Study findings included the following: (1) for the 1990 cohort after 5 years, 30% were classified as achievers, of whom 18% had earned an award or transferred or both; (2) after 4 years, the 1990 cohort had a 28% achievement rate, while the 1991 cohort had a 27% achievement rate; (3) at the 3-year assessment point, the percentage of achievers dropped from 26% for the 1990 cohort to 25% for the 1991 cohort and to 24% for the 1992 cohort; and (4) the unexplained exit rate after 3 years incrased for the 3 cohorts at a more pronounced rate, moving from 56% in 1990 to 59% in 1991 and 62% in 1992. (MAB)

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# First-Time Entering Student Academic Outcomes: Comparative Cohort Analysis Results, 1990-1995

Enrollment Analysis EA 97-1

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July 1996

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**PRINCE GEORGE'S COMMUNITY COLLEGE**
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# FIRST-TIME ENTERING STUDENT ACADEMIC OUTCOMES: COMPARATIVE COHORT ANALYSIS RESULTS 1990-1995

Enrollment Analysis EA97-1
July 1996

## *Introduction and Methodology*

This enrollment analysis is the first in what will be a series of regular annual reports on the academic attainment of PGCC first-time entering students. The Office of Institutional Research and Analysis has recently completed the development of a comprehensive freshman academic monitoring database – the Cohort Tracking System (CTS) – capable of following the progress of peer groups of fall-entering first-time students through to the sixth year of potential enrollment[1]. Functioning on-going cohort datasets currently include those for Fall 1990, 1991, 1992, 1993 and 1994. Each existing cohort in the system is annually updated at the conclusion of the Summer II term with term-by-term enrollment, course performance and graduation data provided by Student Records, and in the following spring with term-by-term four-year institutional transfer data provided by the Maryland Higher Education Commission's Transfer Student System (TSS)[2]. Also, by similar means, each year a new cohort database will be established, perpetuating the system indefinitely, and the oldest cohort, finishing its sixth year, retired.

Beginning with this analysis, OIRA will report on the yearly academic progress of students in each cohort in the system, from youngest second year cohort to the oldest, e.g., in this case, for Cohort 1993 as of end of Year 2 (1995), Cohort 1992 by EOY 1 (1994) and 2 (1995), for Cohort 1991 by EOY 1 (1993), 2 (1994) and 3 (1995), etc. Parallel End-of-Year progress assessments will be compared across

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[1]Past research demonstrates that cohorts of this type have effective lifetimes of around 12 major terms, after which the proportion of continuing students shrinks to virtual insignificance (under 2 percent). For a thorough review of the nature and methodology of CTS, see OIRA enrollment analysis *Tracking Student Progress at P.G.C.C.: Basic Findings of the 1990 Entering Cohort Four Year Academic Outcomes Analysis* (EA95-7, June 1995). For recent research applications, see also EA96-1 (July 1995) and EA96-6 (June 1996).

[2]TSS data, unfortunately, is limited to students transferring at least 12 credit hours to Maryland state schools only, and therefore does not give an indication of the full extent of transfer behavior of Maryland community college students.

cohorts to give us a sense of student progress trends over time. In this regard, the fourth EOY assessment holds the most interest, since experience shows that the overwhelming majority of cohort member academic fates at PGCC will have been settled by this point. This first time, we will only be able to compare the Year 4 outcomes of two cohorts (1990 and 1991), but each new cycle of terms will add another assessable at Year 4.

To carry out the End-of-Year assessments of cohort performance reported here, we utilized OIRA's standard paradigm of academic outcomes which divides students into two main categories: *Achievers* are those who either left PGCC with a formal academic accomplishment (earned an associate degree, occupational certificate or letter-of-recognition, or managed to transfer to a four-year school, or both), or reached sophomore in good academic standing status (30 or more credit hours) without graduating or transferring. *Non-Achievers* or *Unexplained Exiters* are those who exit from study at PGCC without either a formal accomplishment or sophomore in good standing status. The paradigm is rounded off by a residual *Continuing Student* category – those without formal accomplishments or sophomore in good standing status but still attending PGCC at the time of assessment. Our findings on the academic progress of currently active CTS cohorts are embodied in the table below, which presents selected paradigm achievement category percentages for all cohorts reaching the same End-of-Year assessment point – 2 years out, 3 years out, 4 years out and 5 years out. (Full paradigm results can be found in the appendix table following the body of this report.)

Cohort 1990 was the only entering freshman peer group in existence long enough to have reached the five year mark, the assessment point now closest to outcome finality. According to the table, exactly three in ten of its members managed to classify as Achievers (30 percent were either graduates, transferrers to four-year colleges and universities, or otherwise sophomores in good standing). A little under a fifth (18 percent) turned out to be formal Achievers (award or transfer or both) – 13 percent managing to transfer, 7 percent earning associate degrees or certificates and recognition letters[3]. Put another way, formal accomplishment accounted for almost three-fifths (59 percent) of all fifth year Cohort 1990 paradigm-measured academic achievement at this point, the remainder (41 percent) being the result of simple sophomore in good standing attainment.

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[3]The percentages in the separate Transfer and Award categories when summed somewhat exceed the percentage given for the Award and/or Transfer category because the former two overlap (the Award and Transfer Both intersection). For late assessment points (End-of-Year 4-6), the Award category is virtually synonymous with Associate degree graduation, those cohort members who earned only certificates or recognition letters making up only a handful of classifiers; for example, over 95 percent of Cohort 1990 Award earners received Associate degrees by EOY 5.

At the fourth year assessment point, the outcomes of two tracking groups can now be gauged – Cohort 1991 along with Cohort 1990. The fourth year Achievement rate for the older cohort was 28 percent, only two percent lower than its fifth year rate, suggesting that fourth year assessment will in general yield a fair approximation of final outcome achievement rate. Cohort 1991's fourth year overall achievement rate (27 percent) came so close to that for Cohort 1990 as to be statistically undifferentiable. This finding may be taken as corroboration of the reliability and stability of achievement benchmarks taken at the forth cohort year and of the basic proportional pattern of final academic outcomes first suggested by Cohort 1990 analysis: In the mid-1990s, around three PGCC students in ten (perhaps we will find this approaching one in three with six years of measurement) can be expected eventually either to fulfill their initial formal academic goals (about one in five) or at least to exit study as a sophomore in good standing; the converse, however, is also likely to be true – the probability of a randomly selected student in this interval dropping out of study at PGCC without any obvious academic results is something like two in three[4].

As the table shows, data from three cohorts (1990, 1991, 1992) were available for a third year outcomes assessment, just barely enough to begin looking for trends over time. Around a quarter of the members of each classified as Achievers by the end of Year 3, but the Achievement rate dropped slightly with each successive cohort: Cohort 1990 – 26 percent, 1991 – 25 percent, 1992 – 24 percent. The reverse pattern, comparing Unexplained Exiter rates, was more pronounced: Cohort 1990 – 56 percent, 1991 – 59 percent, 1992 – 62 percent. Whether this negative trend is real or only apparent (the result of too few comparison cohorts and immature assessment in the third year) will have to await next year's analysis when three-cohort Year 4 assessment and four-cohort Year 3 assessment can be made.

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[4]It is important to stress, however, that not all unexplained exiting will be of the "dropout" variety – leaving off study due to actual academic failure. In a community college setting, heterogeneity of the educational objectives of students is the rule and many who leave without discernable standard accomplishments may actually have attained study goals not related to academic program outcomes and transfer expectations (e.g., upgrading job skills for a promotion or salary increase). Also, a fair proportion of unexplained exiting may be accounted for by four-year transference not tracked by MHEC's Transfer Student System (those going to private and out-of-state colleges and universities). Finally, comprehensive attrition studies in the institutional research literature suggest that between 5-10 percent of attendance cessation in U.S. higher educational institutions of all types relates to non-academic causes (e.g., job loss, family pressures, ill health, etc.).



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## OUTCOME COMPARISON OF PGCC ENTERING FRESHMEN COHORTS: SELECTED ACADEMIC ACHIEVEMENT MEASURES

| | YEAR 2 | YEAR 3 | YEAR 4 | YEAR 5 |
|---|---|---|---|---|
| **% ACHIEVERS** | | | | |
| COHORT 1990 | 20 % ( 472) | 26 % ( 612) | 28 % ( 674) | 30.% ( 721) |
| COHORT 1991 | 19 % ( 412) | 25 % ( 537) | 27 % ( 587) | |
| COHORT 1992 | 17 % ( 363) | 24 % ( 522) | | |
| COHORT 1993 | 18 % ( 393) | | | |
| **% TRANSFERS** | | | | |
| COHORT 1990 | 7 % ( 175) | 11 % ( 270) | 13 % ( 309) | 13 % ( 320) |
| COHORT 1991 | 6 % ( 132) | 11 % ( 233) | 12 % ( 249) | |
| COHORT 1992 | 4 % ( 98) | 6 % ( 141) | | |
| COHORT 1993 | 2 % ( 43) | | | |
| **% AWARDS** | | | | |
| COHORT 1990 | 1 % ( 14) | 3 % ( 81) | 6 % ( 135) | 7 % ( 175) |
| COHORT 1991 | 1 % ( 20) | 3 % ( 65) | 5 % ( 114) | |
| COHORT 1992 | 1 % ( 14) | 3 % ( 68) | | |
| COHORT 1993 | 1 % ( 13) | | | |
| **% TRANS. OR AWARD** | | | | |
| COHORT 1990 | 8 % ( 184) | 13 % ( 312) | 16 % ( 382) | 18 % ( 424) |
| COHORT 1991 | 7 % ( 144) | 14 % ( 265) | 15 % ( 321) | |
| COHORT 1992 | 5 % ( 109) | 9 % ( 194) | | |
| COHORT 1993 | 3 % ( 55) | | | |
| **% UNEXPLAINED EXITS** | | | | |
| COHORT 1990 | 48 % (1143) | 56 % (1336) | 62 % (1480) | 65 % (1552) |
| COHORT 1991 | 50 % (1066) | 59 % (1274) | 65 % (1394) | |
| COHORT 1992 | 54 % (1177) | 62 % (1357) | | |
| COHORT 1993 | 55 % (1187) | | | |

NOTE: Achiever categories overlap: % Transfer includes those with transfer only and those with both a transfer and an award, % Awards includes those with awards only but also those with an award and transfer both. % Transfer or Award includes those with either or both, but excludes the residual Achiever group – good standing sophomores only.
* Less than .5 %

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## *APPENDIX TABLE*

## OUTCOME COMPARISON OF PGCC ENTERING FRESHMEN COHORTS: FULL ACADEMIC ACHIEVEMENT PARADIGM

| | YEAR 2 | YEAR 3 | YEAR 4 | YEAR 5 |
|---|---|---|---|---|
| ***COHORT 1990*** | | | | |
| TRANSFER ONLY | 7 % ( 170) | 10 % ( 231) | 10 % ( 247) | 10 % ( 249) |
| TRANSFER & AWARD | * ( 5) | 2 % ( 39) | 3 % ( 62) | 3 % ( 71) |
| AWARD ONLY | * ( 9) | 2 % ( 42) | 3 % ( 73) | 4 % ( 104) |
| SOPH./G.S.-EXIT | 2 % ( 49) | 4 % ( 104) | 6 % ( 150) | 7 % ( 173) |
| SOPH./G.S.-CONT. | 10 % ( 239) | 8 % ( 196) | 6 % ( 142) | 5 % ( 124) |
| NO ACHIEVMT-CONT. | 33 % ( 779) | 19 % ( 446) | 10 % ( 240) | 5 % ( 121) |
| NO ACHIEVMT-EXIT | 48 % (1143) | 56 % (1336) | 62 % (1480) | 65 % (1552) |
| ***COHORT 1991*** | | | | |
| TRANSFER ONLY | 6 % ( 124) | 9 % ( 200) | 10 % ( 207) | |
| TRANSFER & AWARD | * ( 8) | 2 % ( 33) | 2 % ( 42) | |
| AWARD ONLY | 1 % ( 12) | 2 % ( 32) | 3 % ( 72) | |
| SOPH./G.S.-EXIT | 2 % ( 42) | 5 % ( 97) | 6 % ( 128) | |
| SOPH./G.S.-CONT. | 11 % ( 226) | 8 % ( 175) | 6 % ( 138) | |
| NO ACHIEVMT-CONT. | 31 % ( 676) | 16 % ( 343) | 8 % ( 173) | |
| NO ACHIEVMT-EXIT | 50 % (1066) | 59 % (1274) | 65 % (1394) | |
| ***COHORT 1992*** | | | | |
| TRANSFER ONLY | 4 % ( 95) | 6 % ( 126) | | |
| TRANSFER & AWARD | * ( 3) | 1 % ( 15) | | |
| AWARD ONLY | 1 % ( 11) | 2 % ( 53) | | |
| SOPH./G.S.-EXIT | 2 % ( 51) | 4 % ( 83) | | |
| SOPH./G.S.-CONT. | 9 % ( 203) | 11 % ( 245) | | |
| NO ACHIEVMT-CONT. | 29 % ( 642) | 14 % ( 303) | | |
| NO ACHIEVMT-EXIT | 54 % (1177) | 62 % (1357) | | |
| ***COHORT 1993*** | | | | |
| TRANSFER ONLY | 2 % ( 42) | | | |
| TRANSFER & AWARD | * ( 1) | | | |
| TRANSFER & AWARD | 1 % ( 12) | | | |
| SOPH./G.S.-EXIT | 1 % ( 15) | | | |
| SOPH./G.S.-CONT. | 15 % ( 323) | | | |
| NO ACHIEVMT-CONT. | 27 % ( 569) | | | |
| NO ACHIEVMT-EXIT | 55 % (1187) | | | |

* Less than .5 %